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OUTLOOK FOR DAIRY

James J. Miller
Economic Research Service, USDA

Nothing very dramatic is expected to happen to either the supply or demand for milk and dairy products in 1998, following on the heels of a year more notable for what did not happen than for what did. In 1998, milk production is expected to be near the 1997 level, while dairy demand grows moderately. With no clear sense of market direction, dairy prices may well stay volatile but are projected to average only slightly higher than in 1997.

Prices of concentrate feeds and forages may ease in 1998 but will stay relatively high through at least most of the year. Expected returns are not likely to upset the balanced trend and structural adjustments that have held milk output fundamentally stable in recent years. Sluggish growth in milk per cow is expected to only barely outweigh a 1-percent decline in milk cow numbers.

Continued economic growth is expected to sustain the good, but not spectacular, dairy demand of recent years. However, reactions to prices above those of earlier in the nineties will pare away some of the potential growth in commercial use. In addition, large stocks of nonfat dry milk and the probable spring lapse in exports under the Dairy Export Incentive Program (DEIP) will weaken price rises.

Milk Production Stagnant

In 1997, milk producers handled very tight supplies of dairy-quality forage better, avoiding a repeat of 1996's spring collapse in milk per cow, and their cows benefitted from relatively favorable summer weather. Other than these two factors, milk production in 1997 was very similar to 1995 and 1996. The almost 157 billion pounds produced last year was less than 1 percent more than in 1995, although more than 1 percent larger than in 1996.

Milk-feed price relationships help explain some of this stability in milk output. The milk-feed ratio has spent most of recent years in the range normally associated with below-trend growth in milk per cow. Correspondingly, milk per cow, except for the direct and indirect effects of weather, has grown quite modestly. Although the milk-feed ratio will be more favorable during part of 1998, the 1998 average is projected to be a moderately unfavorable 1.6--not much incentive to boost grain feeding and milk per cow.

Returns over concentrate costs in 1997 were higher than they had been in the early nineties but fell about 11 percent from the strong 1996 returns. The stronger returns of 1996-97 did not do much to slow declines in milk cow numbers. The increases were insufficient to significantly alter the position of those dairy farms under long-term income stress and many of them

continued to leave dairying. Similarly, these higher returns have not yet unleashed much expansion by stronger producers, as forage supplies and other factors have deterred growth. Returns over concentrate costs are expected to rise slightly in 1998. The cumulative effects of three years of higher returns may start to slow cow number declines by yearend.

Despite fairly large alfalfa production in recent years, supplies of dairy-quality hay have been very tight. Quality problems have been widespread in each of the last three crops, leaving only minimal stocks of good hay. Alfalfa prices reached record levels in 1997, even compared with the relatively high milk or concentrate feed prices, and had a substantial impact on the returns of those producers buying hay-- if they were able to find acceptable hay. Many more farmers were affected by the spotty quality of their homegrown alfalfa. Overall, lack of enough good forage trimmed growth in milk per cow and disrupted expansion plans. Conditions would have been much worse if the last two silage crops had not been good. Even a bumper 1998 alfalfa harvest cannot greatly ease the dairy forage problem until late 1998, although the drop in Asian alfalfa demand and the relatively mild winter has eroded prices recently.

Firm Use Seen

Dairy demand continues to benefit from the strong economy. Commercial use comparisons were strongly affected by much different pipeline stock changes in 1996 and 1997, particularly in the middle quarters. On a milkfat basis, commercial use rose almost 1 percent in 1997. Sales of dairy products on a skim solids basis were a little sluggish, slipping fractionally. Skim solids sales appeared to be more affected by delayed reactions to the high prices of 1996, and aggressive use of the DEIP pulled supplies away from domestic users.

Continued economic growth and little or no increase in retail dairy prices in 1998 should boost commercial use of dairy products. Sales of skim solids are projected to rise about 2 percent, while milkfat sales are expected to increase 1 percent again. The brisk apparent demand for milkfat during the second half of 1997 and early 1998 implies that the rise in milkfat sales would be considerably larger if supplies were large enough to avoid substantially higher milkfat prices.

Commercial stocks at the start of 1998 were close to a year earlier. Comparisons of recent butter and particularly cheese data with earlier years are not straightforward because they include warehouses that did not report in earlier years--a difference of 0.5-1.0 billion pounds milk equivalent. On January 1, holdings of butter and American varieties of cheese were moderate and inventories of most other products were tight. The only exception was continued burdensome stocks of nonfat dry milk.

International Dairy Markets Softening

International butter prices rose during most of 1997. Demand for imports was fairly brisk, while consumption increases in some exporting countries trimmed export supplies. Demand for nonfat dry milk was somewhat weaker, in part because Mexico and Algeria were importing less. Although prices generally trended downward during 1997, a modest reversal occurred during the

second half. Large importers were again active and offerings were seasonally smaller.

Since November however, prices of both products began to slide. Asian demand has weakened dramatically and even some deals completed before the crisis probably will be canceled. The strength of the U. S. dollar also has trimmed prices. Lastly, New Zealand and Australia have been more aggressively selling products. During the first half of their season, these countries were conservative about making commitments because of the uncertain effects of El Niño weather. Although conditions have been dry, there is no longer the same potential for sharp production drops.

There probably will be enough international market demand to push DEIP exports to amounts allowed under the WTO, but reaching the limits for all products is not certain. Weakness in Asia may give buyers the upper hand in negotiations, slowing the sales pace. Domestic supply commitments may not be easy to obtain, particularly for products containing milkfat.

Contract activity under the DEIP slowed substantially in early 1998 after being brisk during the second half of 1997. The only allocation for nonfat dry milk that remains unfilled for the July 1997-June 1998 contract year is for less than 10,000 tons going to Latin America. The WTO limit may well be reached by this spring, with no new contracts negotiated until after the flush milk production season. Exports of butter and milkfat under the DEIP probably will not be filled because of the lack of domestic supplies. Contract activity during the second half of 1998 probably will be at a pace roughly corresponding to the WTO limits for most products, unless domestic markets are tighter than expected.

Price Volatility To Remain

Without a clearcut sense of the direction of production and use changes, milk and dairy product prices likely will continue to be pushed around by small changes in market fundamentals or pipeline stocking. If milk output stays near or above a year earlier as expected, the seasonal buildup in production should overcome the current price strength and drop spring and summer prices of cheese and milk significantly below current levels. However, strong butter prices (which may not weaken) have effectively isolated cheese prices from the nonfat dry milk market--the major weak spot in dairy markets. Even if the seasonal drop in cheese prices is fairly sharp, farm milk prices probably will stay above a year earlier during the first half of 1998.

For all of 1998, farm milk prices are projected to average only slightly above 1997's $13.38 per cwt. However, odds probably are greater that prices will average above the projection than below. Production faltering because of forage problems or lack of farms expanding and stronger-than-expected demand represent two quite plausible scenarios that would generate much higher milk prices.

Issues for the Intermediate Outlook

Record-high alfalfa hay prices did not suddenly appear in 1997. Relative to all farm prices, alfalfa hay prices have trended upward, even though production has remained about the same. The pattern is most pronounced west of the Rocky Mountains. Western alfalfa prices have moved upward despite gradual increases in regional alfalfa production. Price increases for high quality alfalfa hay probably have been greater than average, since some evidence indicates that quality premiums have grown.

The factors behind the large increases in Western alfalfa prices are not all known. Larger exports certainly were a factor as Japan, Korea, and Mexico have become important buyers of top quality hay. Horses certainly are strong competition for high quality hay, although it is not clear that horse demand has grown. Less beef feeding in the West probably has lessened competition somewhat, although beef demand may have a greater role in prices of lower quality hay. Much of the uptrend in alfalfa prices appears to be related to the region's growth in milk production. Milk cows, exports, and horses probably now absorb almost all of the "dairy" quality alfalfa currently being produced in the region.

The West can and is expanding alfalfa production. Recent prices make alfalfa much more competitive for land and water. In 1997, average value of California's production exceeded $900 per acre, not exactly the "low-value" crop often depicted. However, long-term price prospects are for Western hay prices that will be significantly higher than in the past, even if prices slip from the 1997 peak. Prices within the region have become much more integrated as brokers comb the region for relative bargains. Tightness in Western hay markets even appears to be spilling over into the hay markets of the Northern Plains. The West is becoming a potential customer, rather than competitor, for Northern Plains hay sellers.

Alfalfa price increases will have several implications for the dairy industry, particularly in the West. Growth in Western production will not be as easy as in the past. Relative costs of milk production are likely to rise as producers either pay the price for top quality hay or learn to incorporate lower quality forages. Hay prices definitely will not stop development of the Western dairy industry, but they may well slow it. Also, increasing numbers of Western farmers may look east of the mountains to start new dairy operations.

Higher alfalfa prices outside the West probably will have less impact. They may even make it easier to establish large, industrial-style dairy farms if they stimulate development of commercial hay markets in northern dairy areas. Dairy farmers in all areas probably will have to adjust their thinking about dairy rations, as alfalfa may not be a cheap source of nutrients to be fed to the limit of the cow's capacity.

Development of new large dairy herds appears to have slowed recently--despite higher returns in 1996-97. The longer-term increase in these operations in the North indicates that such farms can be competitive, even though the largest size category in the NASS data includes more than just the "new-style" operations. The number of large operations has grown in the Lake States, Northeast, and West, while slipping in other areas. In the core dairy regions, growth in the number of large farms, particularly those larger than 400 cows, seems inevitable in light of

economies in investment and efficiencies of specialization of labor and management.

Expansion of large farm numbers was relatively restrained in much of 1996 and 1997 and is expected to be in much of 1998, partly because of forage problems and milk price volatility. Starting a new operation or greatly expanding an existing farm sharply boosts a producer's financial vulnerability, even for the best managers. Risks from the lack of an assured supply of high quality forage for expansion were particularly important recently because farmers could not rely on being able to find acceptable hay if they fell short. Similarly, the recent volatility in milk prices probably deterred some expansions. Even though prices wound up averaging higher, the added risk may have been too much.

These expansion-minded producers will not be denied forever. A major uncertainty for the pattern of milk production and prices in the next few years is the pace of such growth. A surge of expansions (possibly even starting in late 1998) might drop milk prices significantly lower than expected during the next few years. On the other hand, continued conservatism might mean the exit of other farms will result in stagnant or even declining milk output and rising milk prices.

Slower expansion in the number of western dairy farms may be more persistent. In addition to the changes in the western alfalfa markets, there may remain fewer places in the region where milk production can mushroom into a dairy center such as Roswell NM or Twin Falls ID. Future emergence of new areas may come at the expense of established areas.

Lastly, the growth of large dairy farms increasingly will be affected by environmental restrictions on large units. The days of dairies being relatively uninhibited, compared with other animal operations, clearly are over. However, discussion of this topic is best left to the experts who will follow.